

**REDACTED**

UNITED STATES DISTRICT COURT  
DISTRICT OF MASSACHUSETTS

HYDRO-PHOTON, INC.,  
a Maine Corporation

Plaintiff,

v.

Civil Action No. 05-11240 GAO

MERIDIAN DESIGN, INC., a California  
Corporation

Defendant.

**PLAINTIFF HYDRO-PHOTON, INC.'S STATEMENT OF UNDISPUTED FACTS IN  
SUPPORT OF ITS CROSS MOTION FOR PARTIAL SUMMARY JUDGMENT OF  
INFRINGEMENT**

Pursuant to Federal Rule of Civil Procedure 56 and Local Rule 56.1, Plaintiff Hydro-Photon, Inc. ("HPI"), respectfully submits its statement of material facts as to which there is no genuine issue to be tried in support of its Cross Motion for Partial Summary Judgment of Infringement.

**United States Patent No. 6,110,424**

1. Hydro-Photon is the owner of United States Patent No. 6,110,424, entitled "Hand-Held Ultraviolet Water Purification System," which was duly and legally issued by the U.S. Patent and Trademark Office on August 29, 2000 (the "'424 patent"). (Exhibit 1 to MDI's Memo.).

2. Claim 7 of the '424 patent reads as follows:

7. A hand-held system for purifying unsterilized water, the system including:

- A. a drinking container having at one end an opening through which water both enters and exits the container and a second closed end for holding the water in the container;
- B. a case with an outwardly extending ultraviolet light source, the light source for submerging in the unsterilized water that is held in the drinking container and providing ultraviolet emissions that purify the unsterilized water,
- C. control means for turning the light source on and off, the control means being contained in the case. *Id.*

3. HPI and MDI agree that “control means for turning the light source on and off” limitation of claim 7 is a means-plus-function limitation in accordance with 35 U.S.C. §112 ¶6. See MDI’s Memo., p. 8-9; Plaintiff’s Statement of Claim Terms Likely to be in Dispute and its Proposed Construction of the Same, filed with the Court on November 10, 2005, p. 10.

4. HPI and MDI agree that the claimed function of this limitation is “turning the light source on and off.” *Id.*

### **MDI’s Accused Product**

5. MDI manufactures and sells an ultraviolet portable water purifier product called AquaStar. Matthews Dec. ¶ 2.

6. MDI also manufactures and sells a product called AquaStar Plus!, which includes the same features as the AquaStar and certain additional features, such as an improved timing circuit, better weather sealing, added shock protection, and a built-in camping lantern function. *Id.* ¶¶ 2, 4.

7. The AquaStar product includes a bottle with an opening and threaded screw-on cap that fits over the opening of the bottle. The cap includes an ultraviolet bulb mounted to the cap and oriented to extend into the bottle when the cap is screwed onto the bottle. The cap

contains batteries for providing power to the ultraviolet bulb and a switch for turning the bulb on and off. *Id.* ¶ 3.

8. The AquaStar is of a size permitting it to be easily held in the hands of a human user. Maiden Dec. ¶ 3.

9. The AquaStar includes a polycarbonate bottle having an open, threaded end. The bottle can hold water, and water can be drunk from the open end of the bottle. Maiden Dec. ¶ 4.

10. The AquaStar includes a control head or case with a screw-on cap extension that can be screwed onto the open, threaded end of the polycarbonate bottle. An ultraviolet lamp extends from one end of the case so that, when the case is screwed onto the bottle, and the bottle is nearly full with water, the ultraviolet lamp is fully submerged in the water. Maiden Dec. ¶ 5.

11. The case of the AquaStar also includes a battery compartment which contains batteries that serve as a source of power for the ultraviolet lamp. The case further includes a button accessible to the user from outside the case to turn the ultraviolet lamp on and off. Maiden Dec. ¶ 6.

12. The on-off button of the AquaStar mechanically connects inside the case to the contacts of a switch that is used in turning the ultraviolet lamp on and off. Through the switch a signal is provided to a microcontroller that controls the voltage supplied to the gate of a field effect transistor. The gate of the field effect transistor opens and closes such that the transistor operates as a switch, to control the supply of power to the lamp. Maiden Dec. ¶ 7.

#### **Prosecution of the '212 and '424 Patent in the United States Patent and Trademark Office**

13. HPI filed two patent applications directed to its water purification system: Serial No. 08/790,750, filed on January 1, 1997 (the "750 application"), which resulted in the issuance of United States Patent No. 5,900,212 and Serial No. 09/256,054, filed on February 23, 1999 (the

'054 application"), which resulted in the issuance of the '424 patent. '424 patent, p. 1 (Exhibit 1 to MDI's Memo.).

14. Only the '424 patent is presently being asserted against MDI in this action.

15. The claims of the '750 application, as originally filed on January 1, 1997, were not limited to water purification systems that included or required a liquid level sensor. Gannon Dec., Exh. A, pp. 8-9.

16. Statements made by HPI during the prosecution of the '750 application, make it clear that HPI did not consider the liquid level sensor to be required part of the broadest invention:

"A liquid level sensor **may** be included in the system, to prevent the lamp from turning on before it is fully immersed in the water."

(Gannon Dec. Exh. B, p. 5).

"As discussed during the interview, the inventive system includes, **in the preferred embodiment**, a mechanism that prevents the ultraviolet light source from turning on until the light source is fully immersed in the water."

(Gannon Dec. Exh. D, p. 6).

17. HPI did not add the liquid level sensor limitation to claim 1 of the '750 application until a final rejection was received. (Gannon Dec. Exh. D, p. 2).

18. HPI stated that it believed that the claims in the '750 application, in particular claim 1, were patentable without the liquid level sensor limitation and also stated that it was going to file a continuation application to seek broader claim coverage, i.e., coverage that did not require the liquid level sensor as part of the broadest claims.

"However, we disagree that the subject matter of claim 1, **without amendment**, is obvious over the previously and newly cited prior art. Accordingly, we make the proposed amendment set forth above to move the application to allowance, and we

**intend to file a continuation application to seek broader claims.”**

(Gannon Dec. Exh. G, p. 4) (emphasis supplied).

19. In the Amendment in the '054 application dated June 23, 1999, HPI continued its insistence that the liquid level sensor limitation was not required in the broadest claims.

**“We disagree that the invention set forth in claims 1, 5 and 7 is obvious in light of United States Patent 5,276,256 to Karamian.”**

(Gannon Dec. Exh. E, p. 3) (emphasis supplied).

20. Claim 11, which became claim 7 in the '424 patent, was added in the Amendment in the '054 application dated June 23, 1999. The liquid level sensor was not recited in claim 11. Claim 12, which depended from claim 11 and became claim 8 of the '424 patent, expressly recited the liquid level sensor limitation. (Gannon Dec. Exh. E, p. 3)

21. The Examiner capitulated in HPI's position by allowing claim 11, which became claim 7 in the '424 patent, to issue without the liquid level sensor limitation. (Exhibit 1 to MDI's Memo.).

22. Claim 11 of the '054 application (which became claim 7 in the '424 patent) originally recited the limitation: “means for turning on the lamp, the means contained in the case.” (Gannon Dec., Exh. E, p. 1-2).

23. In an Amendment in the '054 application dated November 18, 1999, HPI amended the claim 11 for clarity to read, in pertinent part:

**“control means for turning [on] the [lamp] light source on and off, the control means being contained in the case.”**

(Gannon Dec., Exh. F, p. 3).

24. There is nothing in the Remarks section of the Amendment in the '054 application dated November 18, 1999 to suggest that the changes to the "control means" limitation were being made to distinguish over prior art. (Gannon Dec., Exh. F, p. 6).

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28. MDI's web site and product literature indicate that its AquaStar products include a liquid level sensor. Maiden Dec. ¶¶ 8-13.

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Respectfully submitted,

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